



## Evaluation of the Efficiency of Drugs Based on Iodine-Povidone in the Complex Treatment of Chronic Hypertrophic Gingivitis in Adolescents

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**Abstract:** The article is devoted to the actual problem of the effectiveness of the complex treatment of adolescents with hypertrophic gingivitis, the evaluation of the therapeutic and prophylactic efficacy of the drug based on the iodine -povidone solution, "Betadin". The prevalence of periodontal pathology in adolescents over the past decades, in addition to a high rate, has changed towards an increase in the most severe forms (Ashurov K.I. 2012, Vodoltsky M.P. 2011). Based on the relevance of the problem, it is considered correct to determine the ways to solve it.

**Key words:** Hypertrophic gingivitis, adolescents, periodontal diseases, iodine-povidone solution, "Betadin".

**Relevance.** According to the latest epidemiological studies, the prevalence of periodontal diseases in childhood is high: at 12 years-34%, at 15 years-41% (Yanushevich O.O., Kuzminae.M., Kuzmina I.N. et al., 2009.).

Hypertrophic gingivitis of adolescents or juvenile gingivitis occurs during puberty. Etiopathogenesis is important for considering as triggers of the inflammatory process of the gums, it is also necessary to take into account the state of the general body systems involved in maintaining homeostasis (Modina, Mammayeva 2006). In adolescence, there are violations of metabolic processes and tissue function. There are changes in the activity of various endocrine glands. Strengthening the function of the sex glands during puberty has a significant impact on the activity of other endocrine glands and can disrupt the hormonal balance that has developed in a child in childhood. The full-fledged activity of the endocrine system ensures the normal course of metabolic processes in the body. Disruption of hormone production causes a breakdown. This affects the oral mucosa regardless of the excessive or insufficient function of the endocrine glands. As a rule, after 2-3 years the disease passes, but there is a possibility of recession or complications in the form of severe deformities of the periodontal.

In the initial stages of chronic hypertrophic gingivitis, periods of intense inflammatory reaction alternate with periods of remission. The authors associate this nature of the course with endocrine changes during puberty. At the same time, periodontal tissues are not completely formed and are in a state of physiological tension for a long time.

After that, the local microflora of the oral cavity joins the factors and aggravates the process and slows down the treatment process. Since the role of hormonal background remains a subject of discussion, it is necessary to determine an effective method and drugs for the complex treatment of hypertrophic gingivitis in adolescents.

Iodine-povidone is characterized by pronounced antimicrobial activity. Along with this, it acts on gram-positive and gram-negative bacteria, as well as fungi of the genus *Candida*, species of both *albicans* and *non-albicans* and allows you to fight the etiological agent of infectious and inflammatory diseases. Also, iodine-povidone belongs to the so-called cytokine NSAIDs, which are able to suppress the inflammatory process without inhibiting COX, which, therefore, does not lead to the development of side effects associated with an excessive decrease in prostaglandin levels. Iodine-povidone has advantages over chlorhexidine, since with equal effectiveness it has clearly fewer side effects [2.4.6.8.10.12].

**The purpose of the study:** Evaluation of the effectiveness of the drug based on iodine-povidone "Betadin" in the treatment of chronic hypertrophic gingivitis in adolescents.

**Material and methods of examination:** 24 patients with hypertrophic gingivitis aged 13-16 years were under observation. All patients underwent a comprehensive examination of their dental status.

A thorough examination of the oral cavity was carried out with the determination of anatomical and topographic features (the depth of the vestibule of the oral cavity, the place of attachment of the bridges of the lips and tongue, the presence of mucosal strands, etc.), the condition of the bite teeth, the presence of dentition defects. Particular attention was paid to the examination of periodontal tissues, attention was paid to the color, tightness, relief of the marginal edge of the gum, the presence of edema, pronounced hyperemia. All patients had the symptoms of periodontal recession: edema, hyperemia, gum germination. In order to objectively assess the periodontal condition, hygienic indices and samples were determined. To assess the prevalence and intensity, radiological images of periodontal bone tissues were used.

The general condition of the body corresponds to the puberty period with hormonal changes. There is a slight decrease in weight as a result of difficulty eating due to hypertrophic gingivitis. The psychological status shows moderate irritability of the adolescent, due to the cosmetic manifestation of hypertrophic gingivitis against the background of discussion among peers. This affects the patient's self-esteem, which complicates interactions with the attending physician and the effectiveness of treatment.

Complex treatment of patients with inflammatory periodontal diseases included etiological, pathogenetic and symptomatic therapy. The oral cavity was sanitized, caries and its complications were treated and the existing defects were eliminated by restoration, as well as professional oral hygiene. The patients were divided into 2 groups of 12 patients for each group.

Group 1 patients were treated against the background of general therapy: oral cavity treatment with a solution of 0.1% Chlorhexidine, keratoplasty bandages, preparations were applied to the gums.

In addition to the above, group 2 patients were additionally prescribed a solution of iodine-povidone 0.10% (dilute the antiseptic solution "Betadine") in the form of mouthwashes [1.3.5.7.9.11.13].

**Results.** All patients were examined. Clinical observations show that, after complex treatment, the indicators of samples and indices in both groups decreased, the gums had a pale pink hue, and swelling decreased. It should be noted that the inflammatory process was started against the background of hormonal changes in the body and was aggravated by local factors. To date, one of the urgent problems in clinical periodontology of adolescence is the search for fundamentally new approaches to the development of methods for differential diagnosis of periodontal diseases, namely, the assessment

of changes in periodontal tissues depending on the state of the body. But when comparing the results of the indices and samples of both groups, it turned out that the effectiveness of treatment of patients in group 2 increased by 1.2 times. This shows a solution based on iodine-povidone "Betadine" played an important role in maintaining a good treatment result.

**Conclusions:** Since general and local factors are involved in the occurrence of periodontal diseases, the correction of metabolic and functional disorders in inflammatory periodontal diseases should be complex and consist in the use of general and local therapeutic measures (anti-inflammatory and anti-allergic therapy with cyclooxygenase inhibitors (acetylsalicylic acid), the introduction of antioxidant and osteotropic agents), the establishment of contact between the patient and the doctor, taking into account features of the adolescent's psyche. Based on the results of our scientific work, we recommend including the use of a solution based on iodine-povidone "Betadin" in the complex treatment of patients with chronic hypertrophic gingivitis, as it significantly reduces the manifestations of the disease.

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